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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,054	10/19/2000	Jin Pil Kim	8736.045.00	5362

30827 7590 11/30/2004

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EXAMINER	
RAMAN, USHA	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/691,054	KIM, JIN PIL	
	Examiner	Art Unit	
	Usha Raman	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6-7.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED OFFICE ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-8, and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by the "Program and System Information Protocol for Terrestrial Broadcast and Cable" (henceforth referred to as A/65) published on 23rd December 1997 by the ATSC.

In regards to claim 1, the A/65 document clearly discloses a master guide table for a digital broadcast protocol comprising identification information for classifying whether contents of an event information table in a bit stream are shifted in time or changed. Pages 12, and 70-71 of the A/65 states that updates or changes to the EIT, *other than shifting*, are signaled by increasing the version number. The MGT maintains a list of valid PIDs for each of the EIT-k defined, and maintaining a version number list for each of the PID values. During a time shift, when the current EIT-0 becomes obsolete, the shift is indicated by shifting of the PIDs of EIT-1 to EIT-0, (and so forth), while still maintaining their version numbers, thereby indicating no change in the actual content. On the other hand, if there is a need to update content, the EITs are regenerated and this is flagged by updating the version fields in the MGT. The decoder reloads the table by

detecting a change in the version of the MGT, which results of content updating, and not time shifting. Therefore the A/65 document already shows a method for differentiating between a mere shift in time versus an actual update in content of the EIT by indicating the update in the version number.

In regards to claim 2, as discussed above for claim 1, the A/65 document teaches managing a version number and a PID for each table, including the event information table which are defined in a PSIP for a digital broadcast. See page 71.

In regards to claims 3, 8, and 11 the version number for each PIDs (table type) is indicated using an unsigned integer format, which requires allocating at least one bit in a field, specifically reserved for the version number for each of the table types. See pages 6, 16 and 18 of the A/65 document.

In regards to claim 4, this reserved field, reserved for the version number of each table type (table_type_version_number) is situated in a "for_loop" statement in the bit stream syntax. See page 16.

In regards to claims 6 and 13, the A/65 document teaches the steps of, at a transmitting side: preparing a present event information table comprising contents pertaining to a broadcast information table; preparing a master guide table for the digital broadcast protocol including the master guide table identification information (PID list for events) which classifies whether the contents of the present event information table in a bit stream syntax are shifted or time changed (see, pages 12, 70, 71); transmitting the master guide table and

the present information table to a receiving side (the decoder); receiving at the receiving the master guide table including the identification information and the present event information table and parsing the identification information and the present event information and selectively updating (i.e. by reloading the tables at the receiver only on a version update and not on a time shift) a database having parsed contents of a previous event information table with the parsed contents of the present event information table in accordance with the parsed identification information.

In regards to claims 7 and 14, the A/65 document teaches the selective updating step by not updating the database at the receiver when the parsed information indicates that the present event information is shifted in time (by indicating no change in the version number) and updating the database at the receiver (by reloading the tables) when the parsed information indicates that the present information table is changed (by indicating the change in the version number). See page 71.

In regards to claim 10, the A/65 document teaches the step of preparing at least one EIT based on the present time using event information; allocating a PID and a version number for each EIT (see page 71) and including the identification information (table_type_version_number) in the bit stream of the MGT (see page 16); and transmitting the MGT to the receiving party after multiplexing the MGT with audio transport bit and a video transport bit stream (see page 80).

In regards to claim 12, the A/65 document discloses that the EIT contains information for events for each channel. The information includes event title, start time, program duration (i.e. end time relative to the start time), and a pointer to the ETM that further contains the event captions and descriptions. See pages 30, and 32-33. Applicant also notes in page 3, under "Background Invention" that the EIT has event information including title, start time, end time, and caption.

In regards to claim 15, since the version number is provided as the identification number, the version number being represented as an unsigned integer (see pages 31 and 71), the retrieval of the version number comprises the step of reading the value of the unsigned integer, thereby reading the bits assigned in a field reserved for the identification information in the MGT.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Program and System Information Protocol for Terrestrial Broadcast and Cable" (henceforth referred to as A/65) published on 23rd December 1997 by the ATSC.

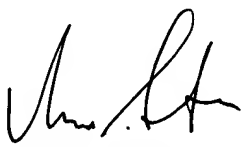
In regards to claims 5, 9, and 16, ATSC A/65 documents discloses that a mere time shift results in shifting the PIDs of the EIT tables, and leaving the version number for each of the PIDs un changed, and that changing in content is flagged by an increase in the version number, which is represented in an unsigned integer format. The A/65 document therefore does not disclose flagging the content updates by changing a bit to '1' and keeping the bit at '0' for indicating only time shifts. Official notice is taken that a flag can be represented using one or more bits (see Microsoft Press', Computer Dictionary, 3rd edition, page 198) to indicate the occurrence of an event. A one-bit 'flag' is Boolean variable, where true is represented by a logic value '1' (in this case, content update is true) and a false is represented by a logic value of '0' (when content update is false). By using a one-bit flag, content update can be communicated by using only one bit, as opposed to an unsigned integer variable, which is represented by a plurality of bits. This reduces the transmission overhead, since the content update information can be communicated with fewer bits. Therefore, it would have been obvious to one of ordinary skill in the art to modify the protocol in A/65, to replace the version number for each of the PID list associated with the EITs, with a flag bit, where the flag value '0' represents no change in content during the time shift and the flag value '1' represents an actual change in content, in order to reduce the transmission overhead.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (703) 305-0376. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VIVEK SRIVASTAVA
PRIMARY EXAMINER

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